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Editorial - On the Life and Death of Information

Statements have appeared in print recently concerning the half-life of biological information which, if they were to be taken seriously, would make a mockery of our best efforts in publishing this periodical and indeed of printing generally. The estimate of this supposed half-life is put at ten years; the author of the statements would be better employed at developing a printing ink which would fade to half its intensity in ten years than in biological research. Think of the forests that could be saved from the hungry pulp mills; and the waterways from their pollution. But think too of the damage to the economy.

Does information die? If so, what constitutes its death -- lack of use? This seems to be analogous to the theory -- moribund, perhaps, but surely not dead -- of use and disuse as a mechanism of evolution. But are theories information anyhow? Or hypotheses? Perhaps they should be regarded as historical information; but we must bear in mind that history repeats itself. The information recorded by Aristotle has considerable influence today, at about 2^{-200} of its original strength; unless perhaps it is only modern information that is so highly mortal. If this be true it may be because of our own inadequate use of preceding information; because, in other words, our information is not really new; not, strictly speaking, information at all.

In the physical sciences, and especially perhaps in chemistry, one hears it said that there is no point in holding back files of periodicals more than ten years. This may be just wishful thinking on the part of overburdened librarians; I cannot believe it to be true. To carry such a proposition over into biology generally, where the very framework of the subject goes back formally to 1758 and informally to the origins of recorded information would, of course, be nonsense. No biologist, surely, would maintain that only 0.0001% of the information produced by Linnaeus is "alive" today.

As we all know, in biological research, ten years is by no means an unusual time lapse between a discovery and its appearance in print. I

once published an account of a piece of work thirty years after doing it -- when it was 87.5% dead. Gregor Mendel's work, though published, was not discovered until it was 95% dead -- what an impact it might have had earlier! Much work, unquestionably, appears before its time, when its viability must increase with age and its immortality must, I think, be conceded. Of course there is also much work that produces results of real interest for a limited time only; new techniques and methods which will in turn by superseded by others, new hyoptheses which ultimately prove untenable. Here, it may be legitimate to speak of a half-life, but preferable to refer to a limited information content; for there are elements in all such work which will endure. Information, as I see it, endures; applications of it, the clothes it wears, may fade. On a human time scale, publications endure well, although sometimes one wishes they wouldn't. If an author feels that his work has a half-life of only ten years; if he feels that publication is a question of now or never, he should probably refrain and content himself with telling his friends and colleagues about it, for it may be half dead before it appears.

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